

### **REMARKS**

Reconsideration of the subject application is respectfully requested in view of the foregoing amendments and the following remarks

Upon entry of the above amendments, claims 1-15 will remain pending in amended form.

In view of the objection to the specification, pages 2, 3 and 4, the references to "polymer compound" are changed to --polymer-- and the references to the "compound containing acid, ..." are changed to --comonomer containing acid, ... ." Corresponding changes are made in the claims.

Claim 12 is amended to correct the reference to "inorganic filler." Accordingly, the rejection of claim 12, 35 USC 112, first paragraph, is avoided.

Although Applicants do not necessarily disagree that "methylemethacrylic esters" do not exist as a class of compounds, nevertheless Applicants understand that the practitioner of ordinary skill in the art would understand "methylemethacrylic ester" as synonymous to "methylemethacrylate." Nevertheless, to avoid any further issue, claim 5 is amended to replace the reference to "methylemethacrylic ester" with --methyleacrylate--.

Accordingly, the rejection of claim 5, 35 USC 112, first paragraph, is traversed and/or avoided.

Claims 7 and 8 have been revised to usual and acceptable Markush language. Therefore, the rejection of these claims under 35 USC 112, second paragraph, is avoided.

In view of the amendment to claim 12, the rejection of claim 13, 35 USC 112, second paragraph, is avoided.

Therefore, all of the formal grounds for objection/rejection are avoided.

In addition to the above amendments, claim 1 is also amended to more clearly describe that the flame-retardant compositions include either (1) organic phosphorous compound (A) and melamine or melamine derivative (B); or (1') melamine-phosphorous compound (AB) (see, *e.g.*, page 1, lines 6-11; page 2, lines 11-14; examples).

Also, a spelling error is corrected in claim 3 and the spelling of "fibre" is changed to "fiber" in claims 13, 14 and 15.

A new Abstract, in a single paragraph, is also provided.

No new matter is added.

Applicants requested reconsideration and withdrawal of the rejection of claims 1-15, under 35 USC 102(b or e) as anticipated over any one of thirteen patents identified in ¶9 and elucidated in ¶10.

It is respectfully submitted that none of the cited references disclose a flame-retardant composition which includes a combination of (1) or (1') with (2) polymer (C) having acid, anhydride or epoxy groups. Further, none of the references disclose flame-retardant polymer polycondensate compositions containing such flame-retardant composition with a thermoplastic polymer.

Kometani *et al*, US 4,246,378

This reference relates to polyester (PE) resinous compositions which include (a) thermoplastic polyester, (b) epoxy compound and (c) organic sulfonate and/or organic sulfate salt. There is a disclosure of optional additives in column 4 line 36 to column 5 line 4. The optional additives include, among other types, "flame retardants selected from halogen substituted aromatic compounds such as decabromodiphenyl ether, brominated polycarbonates, melamine compounds, cyanuric acid derivatives, phosphorus compounds and the like."

Not only is there no example of a composition including a flame-retardant, but there is no suggestion that the flame-retardant should include (1) both halogen-free organic phosphorus compound (A) and melamine or melamine derivative (B); or (1') melamine-phosphorous compound (AB).

Therefore, at least for these reasons, the disclosure of US 4,246,378 does not defeat the novelty of the present claims.

Iida *et al*, US 4,284,540

This reference relates to polyethylene terephthalate (PET) molding compositions. Optional additives are described in columns 5, 6 and 7. Among these optional additives, flame retardants are mentioned at column 6, lines 54-57, including, "halogenated compounds such as decabromodiphenylether and brominated polycarbonate, melamine, cyanuric acid and their salts, antimony dioxide and the like." There is no disclosure of the combination of (1) halogen-free organic phosphorous flame-retardant (A) with melamine (B) and there is no disclosure of melamine-phosphorous compound (AB).

Accordingly, at least for these reasons, the disclosure of US 4,284,540 does not defeat the novelty of the present claims.

Yamamoto *et al*, US 4,456,719

This reference relates to flame retarding thermoplastic polyester composition prepared by mixing (a) halogen-containing polystyrene and/or halogen containing poly- $\alpha$ -methylstyrene, (b) antimony trioxide and (c) epoxy compound (see, *e.g.*, Abstract, column 2, lines 3-25). Accordingly, at least for this reason, this disclosure does not anticipate a halogen-free flame retardant composition or a polycondensate composition containing such halogen-free flame retardant composition.

Furthermore, there is no disclosure of the combination of organic phosphorous flame-retardant (A) and melamine or melamine derivative (B) or melamine-phosphorous compound (AB), among the disclosure of other optional flame-retardants (column 4, lines 52-56).

Therefore, for at least the reasons stated above, the novelty of the present claims is not defeated by the disclosure of US 4,456,719.

Orikasa *et al*, US4,962,148

This reference relates to thermoplastic resin compositions comprising (I) polypropylene, (II) another resin from a defined group, and (III) a multiphase structure (see, *e.g.*, Abstract and Summary, columns 1-2). As disclosed at column 12, lines 60-65, the thermoplastic resin composition "can be brought into a flame retardant state by blending therewith a flame retardant (V) ... ." The flame retardants are then described beginning at column 12, line 66 to column 14, line 6. Broadly, it is disclosed at column 12, lines 66-68 that the flame retardants include the organic halogen series and phosphorus series and inorganic flame retardants. The organic phosphorus series is exemplified at column 13, lines 25-30.

There is no disclosure of a flame-retardant which is halogen-free and which includes a mixture of phosphorous compound (A) and melamine or melamine derivative (B), or a melamine-phosphorous compound (AB).

Accordingly, for at least these reasons, the disclosure of US 4,962,148 does not anticipate any of the pending claims.

Nakamura *et al*, US 5,017,650

This reference relates to an aromatic polyester resin composition containing a polyphenylene ether of defined repeating units and an epoxy compound of the formula (II) and an impact modifier with optional impact modifiers (a), (b) and/or (c) (see, *e.g.*, Abstract and column 2, line 25 to column 3, line 27).

Other optional additives, including flame retardants, are described in columns 13 and 14. The exemplified optional flame retardants include: "halogen substituted aromatic compounds, ..., melamine compounds, cyanuric acid derivatives and phosphorus compounds" (column 13, lines 39-43).

There is no disclosure or suggestion or exemplification of any particular composition containing any of these flame retardants nor is there a disclosure, suggestion or exemplification of mixtures of melamine compounds and phosphorus compounds, nor is there a disclosure of melamine-phosphorus compounds (AB).

Therefore, it is respectfully submitted that, for at least the reasons stated above, the disclosure of US 5,017,650 does not anticipate any of the pending claims.

Saltman, US 5,091,478

This reference relates to partially grafted flexible thermoplastic compositions. Although it is mentioned, *e.g.*, column 11, lines 11-12, that the compositions may include flame retardants, there is no disclosure which exemplifies such flame retardants. Two phosphorus containing compounds, tributoxyethyl phosphate and triphenyl phosphate, are mentioned as representative plasticizers (column 11, line 36). However, even if these phosphorus containing compounds may also be used as flame retardants, there is still no disclosure of a mixture of halogen-free organic phosphorous compound flame retardant (A) and melamine or melamine derivative (B) or a melamine-phosphorous compound (AB).

Accordingly, for at least the reasons stated above, withdrawal of the rejection of claims 1-15 as anticipated by US 5,091,478 is respectfully requested.

Mulholland, US 5,380,774

This reference relates to nylon molding compositions exhibiting improved protection against UV-light degradation (*e.g.*, Title, Abstract). The compositions include a UV-light stabilization system containing a hindered phenolic antioxidant, a phosphite compound and a hindered amine light stabilizer and, optionally, a benzotriazole UV absorber (see, *e.g.*, Abstract).

There is no disclosure of flame retardants. Therefore, even if the phosphite compound in the UV-light stabilization system would qualify as an halogen-free phosphorous flame retardant, this disclosure would still not anticipate the present claims which include, in addition to the phosphorous compound (A) melamine or melamine derivative (B) or, alternatively to the compounds (A) + (B), the melamine-phosphorous compound (AB).

Since the claimed subject matter is not found in US 5,380,774, the rejection of claims 1-15 as anticipated by this document should be withdrawn for at least the reasons given above.

Amimoto *et al.*, US 5,424,104

This reference relates to thermoplastic resin compositions containing (A) an aromatic polyamide with certain defined constituent units, (B) graft-modified  $\alpha$ -olefin polymer and/or graft-modified aromatic vinyl hydrocarbon/conjugated diene copolymer or hydrogenated product thereof and (C) aliphatic polyamide. In a second embodiment an phosphorus antioxidant is also present (see, *e.g.*, column 3, line 7; column 11, line 59 to column 12, line 22).

There is no disclosure of optional flame retardants (see, *e.g.*, column 13, lines 23-29 for the optional additives).

Accordingly, even if any of the phosphorus antioxidants would also provide a flame retardant function, there is still no disclosure of a melamine flame retardant or a melamine-phosphorous compound flame retardant.

Therefore, for at least the reasons stated above, the disclosure of US 5,425,104 does not defeat the novelty of the pending claims.

Asano *et al.*, US 5,710,212

The thermoplastic resins disclosed in this reference do not include a mixture of organic phosphorous flame-retardant (A) + melamine or melamine derivative (B) nor is there a disclosure of melamine-phosphorous compound (AB). Therefore, the disclosure of optional flame retardants of halogen type, phosphoric ester type, melamine type or cyanuric acid type (column 11, lines 39-41) or the auxiliary flame retardants such as antimony trioxide (column 11, lines 41-42) does not provide a disclosure which is anticipatory of the compositions as set forth in the pending claims.

Accordingly, for at least the reasons given above, the rejection based on US 5,710,212 should be withdrawn.

Onishi *et al.*, US 5,846,478

This reference relates to polyamide blow molded products wherein flame retarders are mentioned as optional additive (column 5, line 48). The optional flame retarders are disclosed in more detail at column 7, lines 32, *et seq.* This disclosure is primarily of halogenated organic compounds although inorganic flame retardants are also disclosed.

The disclosure at column 8, lines 28-37 is that certain organophosphate compounds may be used as "halogen-capturing agent." Therefore, in addition to the absence of disclosure of melamine or melamine derivative (B) or melamine-phosphorous compound (AB), there is no disclosure of a halogen-free flame retardant composition.

Accordingly, for at least the reasons given above, the rejection based on US 5,846,478, should be withdrawn.

Statz, US 5,889,114

This reference relates to thermoplastic elastomeric compositions. Here again, there is only a general disclosure of flame retardants (column 7, line 39) but no disclosure of suitable or representative flame retardants. A disclosure of phosphate plasticizers is found at column 7, lines 54-55. There is no disclosure of a combination of halogen-free organic flame retardant (A) + melamine or melamine derivative (B) or of melamine-phosphate compound (AB).

Accordingly, for at least these reasons, the rejection based on US 5,889,114 should be withdrawn.

Imahashi, US 6,043,306

This reference relates to flame-retardant thermoplastic resin compositions. However, the flame retardants are halogen-containing compounds.

Therefore, for at least this reason, the rejection relying on US 6,043,306 as anticipatory of the present claims should be withdrawn.

Matsumoto *et al*, US 6,174,943

This reference relates to flame-retardant thermoplastic resin (polycarbonate and polyester mixture) compositions. An organic phosphorus based compound is used as flame retarder (see column 8, lines 16-67 and columns 9-10 for examples of the organic phosphorus based flame retarder).

There is no disclosure of combining the organic phosphorus based flame retarder with melamine or melamine derivative (B) or melamine-phosphorous compound (AB).

Accordingly, for at least these reasons, the disclosure of US 6,174,943 fails to defeat the novelty of the present claims.

In summary, the prior art of record does not disclose or suggest the subject matter as set forth in claims 1-15.

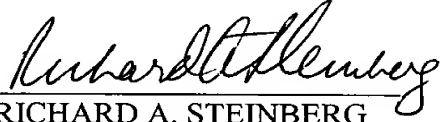
Favorable reconsideration and allowance of the application is, therefore, respectfully requested.

Therefore, all objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Should any issues remain unresolved, the Examiner is encouraged to contact the undersigned attorney for Applicants at the telephone number indicated below in order to expeditiously resolve any remaining issues.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,  
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